

NOZZLE WITH FLOW RATE AND DROPLET SIZE CONTROL CAPABILITY

ABSTRACT

A flexible, self-adjusting flow nozzle is provided, optimally configured for agricultural uses. The nozzle flexes automatically in response to changes in fluid pressure, thereby maintaining an optimal droplet size and spray area for a variety of flow rates. The self-adjusting characteristic of the nozzle allows for the creation of a fully or semi-automatic spray system. The fully automatic system uses a GPS receiver to compare actual geographic data against a predetermined flow plan for automatically making adjustments to flow rate in order to accommodate both speed changes and varying crop needs. The semi-automatic system uses a manually controlled flow rate but utilizes the self-adjusting capabilities of the spray nozzle.